

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers 961 to 1029

*Chrysomela picta*

961.

Water Specimens

Apparatus Used

Depth of Specimen	Specific Gravity	at temp. of	at
Surf.	1.0229	68.5°	1.02411123°
5-fath.			

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *961*

Date, *Aug. 26*

Locality, *Betzgard's Bay*

Bearings, *N 1/2 E 3/4 S 2 3/4 m*

Time of day, *1.52* ; of tide, *Low*

State of sky, *clear*

Temperature of air, *71.5*

" surface of water, *69*

" at depth of fathoms,

" of bottom, *68*

Depth, in fathoms, *8*

Nature of bottom, *bl mud*

Direction of ~~surface current~~ *Wind SW Force 5-*

~~Force of surface current~~, *Drift W x S 3/4 m*

~~Direction of bottom current~~

~~Force of bottom current~~, *3-8*

Name of vessel, *Fish Hawk*

What service attached, *U.S. F Commission*

Name and rank of commanding officer, *J. L. Tanner*

*Lieut U.S. Navy*

Name and position of observer,

*A. P. Chapin*

962  
REMARKS.

Water Specimens.  
Apparatus Used -

Depth of Specimen	Specific Gravity	at temp of	Corrected to 60°
Surf.	1.023	68.5	1.0242125
5 fath.	1.0232	68	1.024336

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

962

Date,

Aug. 26

Locality,

Buzzards Bay

Bearings,

Wrecked, 2nd, 48, 3/4, 3 1/4

Time of day,

3:10<sup>pm</sup>

; of tide,

flood

State of sky,

clear

Temperature of air,

71

"

surface of water,

68

"

at depth of

fathoms,

"

of bottom,

66

Depth, in fathoms,

8

Nature of bottom,

bl. mud & sand

Direction of surface current,

Wind

S W Force 6

Force of surface current,

Drift W NW 1/2 m

Direction of bottom current,

at 2 fath.

Force of bottom current,

" 5 fath.

Name of vessel,

Fish Hawk

To what service attached,

U. S. F. C.

Name and rank of commanding officer,

J. L. Tanner

Lieut. U. S. Navy

Name and position of observer,

A. P. Chapin

963  
REMARKS.

*Water Specimens  
Apparatus Used*

<i>Depth of Specimen</i>	<i>Specific Gravity</i>	<i>Attemp- ature of</i>	<i>Corrected to 60°</i>
<i>Surface</i>	<i>1.023</i>	<i>68.5</i>	<i>1.02421125</i>
<i>5 fms</i>	<i>1.0232</i>	<i>68</i>	<i>1.024336</i>

# TEMPERATURE RECORD.

Instrument used, *Bridge*

Current number of observation, *963*

Date, *Aug 26*

Locality,

Bearings, *Waspick Id SE  $\frac{1}{2}$  S 1 m*

Time of day, *3.40<sup>pm</sup>*; of tide, *flood*

State of sky, *clear*

Temperature of air, *70*

" surface of water, *68*

" at depth of fathoms,

" of bottom, *66*

Depth, in fathoms, *8  $\frac{1}{2}$*

Nature of bottom, *brn. mgt*

Direction of ~~surface current~~, *Wind SW Force 6+*

Force of surface current, *Drift WSW  $\frac{3}{4}$*

Temperature at 20 f.

Direction of bottom current,

Force of bottom current, *" 58"*

Name of vessel, *Fish Hawk*

To what service attached, *U.S. F.C.*

Name and rank of commanding officer, *J. L. Tanner*

*Lieut. U.S. Navy*

Name and position of observer, *A. P. Chapin*



964.  
REMARKS.

Water Specimens.

Apparatus Used

Depth of Sampler	Specific Gravity	Temperature of	Corrected to 60°
Surface	1.024	61	1.024130
5 fathoms	1.02465	58	1.02441

Soundings

Depth in fath	Soundings		Trawlings	
	Down	Up	Down	Up
	Time		Time	
0				
100				
200				
300				
400				
500				
600				
700				
800				
900				

Trawl down from 750 to 800

# TEMPERATURE RECORD.

Instrument used, *Dredge*  
 Current number of observation, *9641*  
 Date, *Aug. 30*  
 Locality, *Crab Lodge*  
 Bearings, *Chatham Lighthouse NW  $\frac{1}{2}$  W 5*  
 Time of day, *7.50* ; of tide, *Ebb*  
 State of sky, *clear*  
 Temperature of air, *65*  
     " surface of water, *61*  
     " at depth of *13* fathoms, *59*  
     " of bottom, *S-S*  
 Depth, in fathoms, *10*  
 Nature of bottom, *S gy*  
 Direction of ~~surface current~~ *Wind S Force 4*  
~~Force of surface current~~, *Drift ES  $\frac{1}{8}$  m*  
~~Direction of bottom current~~, *20*  
~~Force of bottom current~~, *5-6*  
 Name of vessel, *Fish Hawk*  
 To what service attached, *U.S. F.C.*  
 Name and rank of commanding officer, *J. L. Tanner*  
     *Lieut. U.S. Navy*  
 Name and position of observer, *A. P. Chapin*

965.  
REMARKS.

*Water Specimens.*  
*Apparatus Used*

Depth of Specimen	Specific Gravity	at temp. of	Corrected to 60°
Surface	1.024	61	1.02413
5 fathoms	1.0243	59	1.02448

Depth in fathoms	Sounding		Trawling	
	Time Down	Time Up	Time Down	Time Up
0				
100				
200				
300				
400				
500				
600				
700				
800				
900				

Trawl down from 4

# TEMPERATURE RECORD.

Instrument used, • •

*Luredge*

Current number of observation,

*965*

Date,

*Aug 30<sup>th</sup>*

Locality,

*Crest ledge*

Bearings,

*Whitham Lgt. H.  
NW x W 6 mi*

Time of day,

*8-15<sup>h</sup> ; of tide, ebb*

State of sky,

*Clear*

Temperature of air,

*55<sup>-</sup>*

"

surface of water,

*61*

"

at depth of

*5-*

fathoms,

*59*

"

of bottom,

*6-2*

Depth, in fathoms,

*15<sup>-</sup>*

Nature of bottom,

*S. W. sh*

Direction of

*W. wind*

*S*

*Force 4*

Force of surface current,

*Drift S E 1/3 W*

Direction of bottom current,

*2 S*

Force of bottom current,

*" 5 S*

Name of vessel,

*Fish Hawk*

To what service attached,

*U.S. F.C.*

Name and rank of commanding officer,

*J. L. Tanner*

*Lieut. U.S. Navy*

Name and position of observer,

*A. P. Chapin*

766.  
REMARKS.

*Water Specimens  
apparatus used*

Depth of specimen	Specific Gravity	Temperature of	Corrected to 60°
Surface	1.0242	61	1.02433
5 fathoms	1.0244	60	1.0244

*Sounding*

*Trawling*

Depth in fathoms	Time		Time	
	Down	Up.	Down	Up.
0				
100				
200				
300				
400				
500				
600				
700				
800				
900				

*Trawl down from*

*to*

# TEMPERATURE RECORD.

Instrument used, *Bredge*

Current number of observation, *966*

Date, *May 30.*

Locality, *Cape Cod*

Bearings, *Chatham Light.*

*NW 1/4 W 1/4 S 1/4*

Time of day, *8.40* ; of tide, *ebb*

State of sky, *clear*

Temperature of air, *65 -*

" surface of water, *64*

" at depth of *10* fathoms, *5.4*

" of bottom, ~~*5.2*~~ *5.2*

Depth, in fathoms, *5.2 16*

Nature of bottom, *S & S. M.*

Direction of ~~*surface current*~~ *Wind* *SE Force 4*

~~*Force of surface current*~~ *Drift SE 1/2 m*

*Temperature at 207*

~~*Force of bottom current*~~ *5.2*

Name of vessel, *Fish Hawk*

To what service attached, *U.S. F.C.*

Name and rank of commanding officer, *J. L. Tanner*

*Lieut. U.S. Navy*

Name and position of observer,

*A. P. Chapin*

967.  
REMARKS.

Water Specimens.  
Apparatus Used

Depth of Specimen	Specific Gravity	at	Corrected to 60°
Surface	1.0244	61.	1.02453
5 fathoms	1.024	61.5	1.02413

Sounding			Trawls	
Depth in fathoms	Time		Time	
	Down	Up.	Down	Up.
0				
100				
200				
300				
400				
500				
600				
700				
800				
900				
Trawl down from			to	

# TEMPERATURE RECORD.

Instrument used, *Dredge*

Current number of observation, *967*

Date, *Aug 30*

Locality, *Crest of Lake*

Bearings, *Chatham Light No.*

*NW XW  $\frac{1}{2}$  W 6 3/4 mi*

Time of day, *8 50* ; of tide, *ebb*

State of sky, *clear*

Temperature of air, *66*

" surface of water, *61*

" at depth of *5* fathoms, *61 1/2*

" of bottom, *S-2*

Depth, in fathoms, *16*

Nature of bottom, *S. 2 gr.*

Direction of *Wind*, *SW Force 4*

~~Force of surface current~~ *Drift SE  $\frac{1}{8}$  mi*

~~Temperature of surface current~~ *72 S.*

~~Force of bottom current~~ *" SW*

Name of vessel, *Fish Hawk*

To what service attached, *U. S. F. C.*

Name and rank of commanding officer, *J. L. Tanner*

*Lieut. U. S. Navy*

Name and position of observer, *A. P. Chapin*



968.  
REMARKS.

Water Specimens  
Apparatus Used

Depth of Specimen.	Specific Gravity	at Degree	Corrected to 80°
Surf	1.0242	61.5°	1.02433
5 fath	1.0237	62	1.02397

Soundings		Trawlings	
Depth	Time	Time	
in fathoms	Down	Up	Down
0			
100			
200			
300			
400			
500			
600			
700			
800			
900			

Trawl down from 5

# TEMPERATURE RECORD.

Instrument used, *Dredge*  
 Current number of observation, *1968*  
 Date, *Aug. 30*  
 Locality, *Crab Sheds*  
 Bearings, *Chatham Light, No.*  
*NW x W  $\frac{3}{4}$  SW  $7\frac{1}{2}$  m.*  
 Time of day, *9* ; of tide, *ebb*  
 State of sky, *clear*  
 Temperature of air, *66*  
     " surface of water, *61.5*  
     " at depth of *5* fathoms, *61*  
     " of bottom, *5-0, 5M*  
 Depth, in fathoms, *12*  
 Nature of bottom, *gr.*  
 Direction of ~~surface current~~ *Wind S W Force 4*  
~~Force of surface current~~ *Drift NW x W  $\frac{1}{2}$  m*  
~~Direction of bottom current~~ *20*  
~~Force of bottom current~~ *5-09*  
 Name of vessel, *Fish Hawk*  
 To what service attached, *U.S. F.C.*  
 Name and rank of commanding officer, *J. L. Tanner*  
*Lieut. U.S. Navy*  
 Name and position of observer, *A. P. Chapin*

269.  
REMARKS.

Water Specimens  
Apparatus Used

Depth of Specimen	Specific Gravity	wt. Specimen	Corrected to 60°
Surface	1.02112	51.5	1.02433
5' Johnson	1.02444	60	1.0244

Depth in fath	Sounding		Trawling	
	Time Down	Up	Time Down	Up
0				
100				
200				
300				
400				
500				
600				
700				
800				
900				

Trawl down from 5

# TEMPERATURE RECORD.

Instrument used, *Dredge*  
 Current number of observation, *1969*  
 Date, *Aug 20*  
 Locality, *off Chatham*  
 Bearings, *Chatham Lgt. Ho.*  
*NW x W  $\frac{5}{8}$  W 8 mi*  
 Time of day, *9:10* ; of tide,  
 State of sky, *clear*  
 Temperature of air, *66*  
 " surface of water, *61.5*  
 " at depth of fathoms,  
 " of bottom, *5-1*  
 Depth, in fathoms, *18*  
 Nature of bottom, *S. p. sh*  
 Direction of ~~surface current~~ *Wind* *Force 4*  
~~Force~~ *5-8*  
~~Direction of bottom current~~ *at 2*  
~~Force of bottom current~~ *5-10*  
 Name of vessel, *Fish Hawk*  
 To what service attached, *U.S. F.C.*  
 Name and rank of commanding officer, *J. L. Tanner*  
*Lieut. U.S. Navy*  
 Name and position of observer, *A. P. Chapin*

270.  
REMARKS.

Water Specimens.  
Apparatus Used.

Depth in Fathoms.	Specific Gravity	at depth	Corrected to 60°
Surface	1.024	61.5	1.02413
5-fathoms	1.0242	59.5	1.02359

Depth in Fathoms.	Sounding.		Trawling	
	Down	Up.	Down	Up.
0				
100				
200				
300				
400				
500				
600				
700				
800				
900				

Trawl Down from 8

# TEMPERATURE RECORD.

Instrument used,

*Dredge*

Current number of observation,

Date,

*Aug. 30*

Locality,

*Off Chatham*

Bearings,

*Chatham Light, No.*

*W NW 3/4 W 6 m*

Time of day,

*9.43* ; of tide,

State of sky,

*clear*

Temperature of air,

*67*

"

surface of water,

*61*

"

at depth of

fathoms,

"

of bottom,

*5-4*

Depth, in fathoms,

*13*

Nature of bottom,

Direction of

*Wind S. by N. Force 4*

~~Name of surface current~~

*Drift W NW 1/2*

~~Temperature at~~

~~depth of bottom~~

~~Name of bottom current~~

*5-0*

Name of vessel,

*Fish Hawk*

To what service attached,

*U.S.F.C.*

Name and rank of commanding officer,

*J. L. Tanner  
Lieut. U.S. Navy*

Name and position of observer,

*A. P. Chapin*

971  
REMARKS.

Water Specimens.  
Apparatus Used,

Depth/ Specimen	Specific Gravity	at degrees	Corrected to 60°
Surface	1.02395	62	1.02422
5 fathoms	1.024	61	1.02413

Depth in fathoms	Sounding		Trawling	
	Time		Time	
	Down	Up	Down	Up
0				
100				
200				
300				
400				
500				
600				
700				
800				
900				

Trawl down from to

# TEMPERATURE RECORD.

Instrument used, *Bathythermograph*

Current number of observation, *971*

Date, *Aug 30*

Locality, *Off Chatham*

Bearings, *Chatham Light No.*

*W 3/4 N 4 1/4*

Time of day, *10:25*; of tide, *low*

State of sky, *clear*

Temperature of air, *57*

" surface of water, *56*

" at depth of fathoms,

" of bottom, *S 4*

Depth, in fathoms, *11*

Nature of bottom, *S, P, V, M.*

Direction of *Wind*, *S W Force 4*

*Direction of surface current,* *Drift S S E 1/4*

*Direction of bottom current,* *Drift*

*Force of surface current,* *1/2 - 1/4*

Force of vessel, *Fish Hawk*

To what service attached, *U. S. F. C.*

Name and rank of commanding officer, *J. T. Tanner*

Name and position of observer, *Lieut. M. S. Murray*

*A. P. Chapin*



972  
REMARKS.

Water Specimens  
Aparatus Used.

Depth M	Specific Gravity	at	Corrected
Surface	1.020	62.5	1.024338
5 fathoms	1.0202	62	1.02447

Depth Fathoms	Sounding Time.		Trawling Time.	
	Down	Up	Down	Up
0				
100				
200				
300				
400				
500				
600				
700				
800				
900				

Trawl down from 5

# TEMPERATURE RECORD.

Instrument used,

Current number of observation,

972

Date,

Aug. 30

Locality,

Off Chatham

Bearings,

Chatham Light Ho

11 W x W 7/8 W 17 1/2 m

Time of day, 10.48 ; of tide,

State of sky,

Clear

Temperature of air,

67

" surface of water,

62

" at depth of

fathoms,

" of bottom,

5.2

Depth, in fathoms,

16

Nature of bottom,

gr. s. & sh.

Direction of

Wind S W Force 5-

Force of surface current,

Drift N E 1/8

Direction of bottom current,

20

Force of bottom current,

1 1/2

Name of vessel,

Fish Hawk

To what service attached,

U. S. F. C.

Name and rank of commanding officer,

J. L. Tanner  
Lieut U. S. Navy

Name and position of observer,

A. P. Chapin

REMARKS.

Water Specimen  
apparatus used

# TEMPERATURE RECORD.

Instrument used, *Bredge*  
 Current number of observation, *973*  
 Date, *Aug. 30*  
 Locality, *Off Chatham*  
 Bearings, *Chatham Light. Ho*  
*W NW. 6 3/4*  
 Time of day, *11.10* ; of tide, *low*  
 State of sky, *clear*  
 Temperature of air, *67*  
     " surface of water, *62*  
     " at depth of      fathoms,  
     " of bottom, *57*  
 Depth, in fathoms, *17*  
 Nature of bottom, *gr. s. & sh.*  
 Direction of ~~surface current~~, *SW* *5-*  
~~Force of surface current~~, *Drift WSW 1/4*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

## REMARKS.

# TEMPERATURE RECORD.

Instrument used, *Dredge*  
 Current number of observation, *6774*  
 Date, *May. 30*  
 Locality, *off Chatham*  
 Bearings, *Chatham Light*  
*WNW  $\frac{1}{2}$  W 6  $\frac{1}{2}$  m*  
 Time of day, *11.30* ; of tide, *Low*  
 State of sky, *clear*  
 Temperature of air, *67*  
 " surface of water, *62*  
 " at depth of fathoms,  
 " of bottom, *5-1*  
 Depth, in fathoms, *16*  
 Nature of bottom, *gn. s. & sh.*  
 Direction of ~~surface current~~ *wind, S W*  
~~Force of surface current~~ *WSW  $\frac{1}{8}$  m*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer.

## REMARKS.

# TEMPERATURE RECORD.

Instrument used,

*Dredge*

Current number of observation,

*973-*

Date,

*Aug. 30*

Locality,

*off Chatham*

Bearing,

*Chatham Light Ho.*

*W N W 1/4 W 6 1/4 m*

Time of day, *11.45-*; of tide,

State of sky,

*clear*

Temperature of air,

*68*

" surface of water, *63*

" at depth of fathoms,

" of bottom, *5-2*

Depth, in fathoms,

*16*

Nature of bottom,

*gr. s. & sh.*

Direction of ~~surface current~~

*wind S W*

~~Direction of surface current~~

*Drift S 1/8*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,



REMARKS.

# TEMPERATURE RECORD.

Instrument used, *Dredge*  
 Current number of observation, *9776*  
 Date, *Aug. 30*  
 Locality, *Off Chatham*  
 Bearings, *Chatham Light*  
*W 4 W 5/8 W 1 m*  
 Time of day, *12<sup>mn</sup>*; of tide, ~~*low*~~ *flood*  
 State of sky, *clear*  
 Temperature of air, *69*  
 " surface of water, *63*  
 " at depth of \_\_\_\_\_ fathoms,  
 " of bottom, *5-2*  
 Depth, in fathoms, *16*  
 Nature of bottom, *gr. s & sh.*  
 Direction of ~~surface~~ *Wind* *SW Force 6-*  
~~Force of surface current,~~ *Drift SSW 1/2*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

## REMARKS.

Susp.	1.0242	63	1.02459
5-jack	1.0244	62	1.02467

# TEMPERATURE RECORD.

Instrument used,

Bridge

Current number of observation,

1977

Date,

Aug. 30

Locality,

Off Chatham

Bearings,

Batham Lgt.

Time of day, 12.20 ; of tide,

flood

State of sky,

Clear

Temperature of air,

70

"

surface of water,

54

"

at depth of

fathoms,

"

of bottom,

52

Depth, in fathoms,

17

Nature of bottom,

S. p. st.

Direction of ~~surface current~~,

Wind S W

Force of

~~Force of surface current~~,

Bright W & N 1/2 E

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

# REMARKS.

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# TEMPERATURE RECORD.

Instrument used,

*Bridge*

Current number of observation,

*9078*

Date,

*Aug. 30*

Locality,

*off Chatham*

Bearings,

*Chatham Light*

*W N W 6 1/2 m*

Time of day, *12, 30* ; of tide,

*flood*

State of sky,

*clear*

Temperature of air,

*70 ~~71~~*

" surface of water,

*64*

" at depth of

fathoms,

" of bottom,

*5-2*

Depth, in fathoms,

*17*

Nature of bottom,

*S. p. gy.*

Direction of surface current,

*Wind S W. Force 6-*

~~Force of surface current,~~

*Drift W 1/4 N*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

# TEMPERATURE RECORD.

Instrument used, *Bathy*

Current number of observation, *979*

Date, *June 22*

Locality, *Off Chatham*

Bearings, *Chatham Light*

*W N W 1/4 W 6 mi*

Time of day, *12.40*; of tide,

State of sky, *clear*

Temperature of air, *70*

" surface of water, *64*

" at depth of \_\_\_\_\_ fathoms.

" of bottom, *S-2*

Depth, in fathoms, *16*

Nature of bottom, *S*

Direction of ~~surface current~~ *Wind S W force 5-*

~~Force of surface current~~ *Drift W x N 1/2*

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,



## REMARKS.

	Specific Gravity	Temp.	
Surf.	1.02412	62	1.02447
5 fathoms	1.0243	61.5	1.02469

# TEMPERATURE RECORD.

Instrument used, *Bridge*  
 Current number of observation, *9180*  
 Date, *Aug 30*  
 Locality, *Off Chatham*  
 Bearings, *Chatham Light*  
*N 44° W 1/2 W 5 3/4 mi*  
 Time of day, *1.00* ; of tide, *flood low*  
 State of sky, *clear*  
 Temperature of air, *70*  
     " surface of water, *62*  
     " at depth of        fathoms,  
     " of bottom, *5-3*  
 Depth, in fathoms, *14*  
 Nature of bottom, *S. A. sp*  
 Direction of ~~surface~~ *Wind S W Force 5-*  
 Force of surface current, *Drift S W 1/2 mi*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

## REMARKS.

Water Specimens  
 apparatus used

Depth	Specific Gravity	Temp.	Corrected to 60°
Surface	1.0243	63.5	1.02478
5 fathoms	1.0242	65	1.02489

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*981*

Date,

*Aug 30.*

Locality,

*off Chatham*

Bearings,

*Chatham Light.*

*W. N. W. 16 mi.*

Time of day,

*2.10*

of tide,

*flood*

State of sky,

*clear*

Temperature of air,

*65*

"

surface of water,

*68.5*

"

at depth of

*5*

fathoms,

*63*

*107.56*

"

of bottom,

*49*

Depth, in fathoms,

*41*

Nature of bottom,

*.S. & gr.*

Direction of ~~surface~~ current,

*Wind S.W.*

*Force 5*

Force of ~~surface~~ current,

*Drift S  $\frac{1}{2}$  W  $1\frac{1}{2}$  mi*

Direction of bottom current,

*Drift S  $\frac{1}{2}$  W*

Force of bottom current,

*" 50 f.*

Name of vessel,

*Fish Hawk*

To what service attached,

*U.S. F.C.*

Name and rank of commanding officer,

*J. L. Turner  
Lieut. U.S. Navy*

Name and position of observer,

*A. P. Chapin*

982.

## REMARKS.

Water Specimens.  
Apparatus Used.

Depth	Specific Gravity	Temp.	Corrected to 60°
Surface	1.0242	63	1.02461
5 fathoms	1.0242	63.5	1.024679

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *982*  
 Date, *Aug 30*  
 Locality, *Off Chatham*  
 Bearings, *Chatham Is.*  
*Lat. 41.3 S. Long. 69.30 W*  
 Time of day, *2, 45*; of tide, *flood*  
 State of sky, *clear*  
 Temperature of air, *65-*  
 " surface of water, *63.5-*  
 " at depth of *5* fathoms, *60, 10, 5.7*  
 " of bottom, *41.5-*  
 Depth, in fathoms, *410*  
 Nature of bottom, *S. & G.*  
 Direction of ~~surface current~~ *Wind S.W. Force 7*  
 Force of surface current, *Drift SSW 1 1/2*  
 Direction of bottom current, *210 / 43.5-*  
 Force of bottom current, *" 50*  
 Name of vessel, *Fish Hawk*  
 To what service attached, *U.S.F.C.*  
 Name and rank of commanding officer, *J. F. Turner*  
*Lieut. U.S. Navy*  
 Name and position of observer, *A. P. Chapin*

983  
REMARKS.

Water Specimens  
Apparatus Used

Depth	Specific Gravity	Temp.	Corrected to 60°
Surface	1.024	63.5	1.024479
5 fathoms	1.0241	63.5	1.024679

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *983*  
 Date, *Aug, 30*  
 Locality, *Lat. 41.30 N*  
 Bearings, *Long. 69.32.34 W*  
 Time of day, *3:23* ; of tide, *low*  
 State of sky, *clear*  
 Temperature of air, *64.5°*  
 " surface of water, *64*  
 " at depth of *5* fathoms, *62, 10/54*  
 " of bottom, *4 2*  
 Depth, in fathoms, *35*  
 Nature of bottom, *S*  
 Direction of ~~surface current~~ *Wind S W Force 7*  
 Force of surface current, *Drift S x E 1/2 m*  
 Direction of bottom current, *at 20*  
 Force of bottom current, *50 ft.*  
 Name of vessel, *Fish Hawk*  
 To what service attached, *U. S. F. C.*  
 Name and rank of commanding officer, *J. L. Tanner*  
*Lieut. U. S. Navy*  
 Name and position of observer, *A. P. Chapin*



984.  
REMARKS.

Water Specimens  
Apparatus Used.

Depth	Specific Gravity	Temp.	Corrected to 60°
Surface	1.0239	63	1.024311
5 fathoms	1.0250	63	1.025411

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *984*

Date, *May 30*

Locality, *Lat. 41.31 N*

Bearings, *Long. 69.28.32*

Time of day, *4.07* <sup>*pm*</sup>; of tide, *low*

State of sky, *clear*

Temperature of air, *64*

" surface of water, *63.5-*

" at depth of *5* fathoms, *63.107.5-2*

" of bottom, *41.5-*

Depth, in fathoms, *~~37.35~~ 32*

Nature of bottom, *gr & s*

Direction of *Wind S W Force 6* current,

Direction of surface current, *Drift S  $\frac{1}{2}$  W  $\frac{1}{2}$*

Direction of bottom current, *Drift S  $\frac{1}{2}$  W  $\frac{1}{2}$*

Force of bottom current, *1.5-0.1*

Name of vessel, *Fish Hawk*

To what service attached, *U. S. F. C.*

Name and rank of commanding officer, *J. L. Tanner*

Name and position of observer, *Lieut. U. S. Navy*

985

## REMARKS.

Water specimens -  
 Apparatus used

Depth of specimen	Specific Gravity	at degrees	Corrected to 60° F.
Surface	1.0234	69°	1.024687
5 fath	1.0236	66°	1.02444
10 "	1.0238	65°	1.02449

## Soundings

## Trawlings

Depth	Time		Time	
	Down	up	Down	up.
0				
100				
200				
300				
400				
500				
600				
700				
800				
900				

Trawl down from 1.05 to 1.25

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

985

Date,

Sept 7, 81

Locality,

Off. No. 1000 - 15 miles S.

Bearings,

Lat. 41-50' N. Long. 70-45' W.

Time of day,

12:55 ; of tide,

State of sky,

clear - hazy horizon

Temperature of air,

73°

"

surface of water,

66°

"

at depth of 5 fathoms,

64°

"

" " " 10 "

57.5°

"

of bottom,

"

20 fathoms - 50.5°

Depth, in fathoms,

25 fathoms - 26 f.

Nature of bottom,

Sand

Direction of surface current,

Wind S.W.

Force " "

3

Force of surface current,

Drift S.W. by S - 1 1/4 m.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

986

## REMARKS.

Water Specimens  
 Apparatus used

Depth of specimen	Specific Gravity	Temp.	Corrected 60°
Surface	1.0234	67	1.024387
5 fath.	1.0235	66	1.02434
10	1.0237	64	1.024248

Soundings

Trawlings

Depth faths					

Trawl down from 2. pm to 2.20

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

986

Date,

Sept. 7 1881

Locality,

~~17 miles~~ S. of No man's land

Bearings,

Lat 40.55 N

Long 70.44 W

Time of day,

2.00 o'clock of tide,

State of sky,

Clear -

Temperature of air,

73°

"

surface of water,

67°

"

at depth of

5

fathoms,

60°

"

" " " 20

"

50°

"

of bottom,

40°

- 10 fms. 59.5

Depth, in fathoms,

27 28 f-

Nature of bottom,

Sand

Direction of surface current,

" " wind

S.W

Force of surface current,

" " "

Wind

3

Direction of bottom current,

Force of bottom current,

Drift

S.W. = 1 mi

Name of vessel.

To what service attached,

Name and rank of commanding officer,

Name and position of observer,



# TEMPERATURE RECORD.

Instrument used *Koke Dredge*

Current number of observation, *987*

Date, *Sept 7. 81*

Locality, *off Roman's land*

Bearings, *Lat. 40.54. N.*

*Long. 70.45.30 W*

Time of day, *2.28* ; of tide, *to 2.50*

State of sky, *clear*

Temperature of air, *73°*

" surface of water, *67*

" at depth of *5* fathoms, *65° - 10 fms 59.5*

" " *20* " *50°*

" of bottom, *49°*

Depth, in fathoms, *27 28*

Nature of bottom, *Sand*

Direction of surface current, *wind S.W*

Force of surface current, *wind 3*

Direction of bottom current,

Force of bottom current, *drift South - 1/2 m*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,



988

## REMARKS.

Water Specimens

Apparatus used

Depth Station	Spec. No.	Temp	Corrected <sup>15</sup> 6.0.0
Surface	1.0237	67.5	1.02476
5 fms	1.0238	67.5	1.02486
10 fms	1.0242	64.5	1.024818

# TEMPERATURE RECORD.

Instrument used, *Bredge*

Current number of observation, *988*

Date, *Sept 7. 81*

Locality, *off Noman's land*

Bearings, *S. 41. 49. 30 E.*

*alt. 70-42-30*

Time of day, *3.30* ; of tide, *3.51*

State of sky, *Clear*

Temperature of air, *73°*

" surface of water, *67*

" at depth of *5* fathoms, *64°*

" *20* " *50°*

" of bottom, *49.5*

*10 fms 58.5*

Depth, in fathoms, *20*

Nature of bottom, *Sand*

Direction of surface current, *Wind S W*

Force of surface current, *wind 3*

Direction of bottom current,

Force of bottom current, *drift South 1/2 mile*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

989

## REMARKS.

Water Specimens  
Apparatus used

Depth of Specimen	Specific Gravity	Temp	Baromet
			60°
Surface	1.0237	67.5	1.02476
5 fms	1.0239	67.5	1.02486
10 "	1.0242	64.5	1.024818

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *989*

Date, *Sept 7, 81*

Locality, *off Roman Land*

Bearings, *Lat 40 48 N*

Time of day, *from 3:57 to 4:20* ; of tide, at surface, *3:56*

State of sky, *Clear*

Temperature of air, *73°*

" surface of water, *67°*

" at depth of *5* fathoms, *64 - 10 fms 56.5*

" " " *20* " *50*

" of bottom, *49.5*

Depth, in fathoms, *29 30*

Nature of bottom, *Sand*

Direction of surface current,

" *Wind S. W*

Force of surface current,

" " *Wind 3*

Direction of bottom current,

*Drift S. 11 E - 3*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

990

## REMARKS.

Water specimens  
apparatus used

Depth of specimen	Specific Gravity	Temp.	Corrected to 60°
Surface	1.0240	66	1.02484
5 fms	1.0242	65	1.02489
10 "	1.0242	65	1.02489

Touched bottom with 35 fms  
rope - payed out 61 "

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

990

Date,

Sept. 7, 81

Locality,

Off No Man's Land

Bearings,

Lat. 43° 45' N

Time of day,

5:05

State of sky,

Clear

Temperature of air,

71.5

" surface of water,

66

" at depth of 5 fathoms,

64° 10' 10" 10 fms

" " " 20 "

50.5

" of bottom,

47

Depth, in fathoms,

33 34

Nature of bottom,

G. Mud sand

Direction of surface current,

Wind N. S. W.

Force of surface current,

Wind 3

Direction of bottom current,

Drift - S. 1/2 W. 1/2 mile

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

991

## REMARKS.

## Water Specimens

Depth of Specimen	Specific Gravity	Temp.	Corrected to 60°
Surface	1.0240	66	1.02484
5 fms	1.0242	65	1.02489
10 "	1.0242	63	1.02461

Bottom at 48 fathoms

TEMPERATURE RECORD.

Instrument used. Trawl Deep Sea

Current number of observation. 691

Date, Sept. 7. 81

Locality, Off No Mans Land

Bearings, *Lat. 40.35. N.*

May 20 - 4 to 7  
but over 10.05 on bottom

State of sky, *Clear*

Temperature of Air, 70

surface of water. 66°

at depth of 5 fathoms,  $64^{\circ}$  10' 56.5"

20 40

" of bottom, 47.5

Depth, in fathoms, ~~33~~ 34

Nature of bottom, *Green mud & sand*

" " Hand - W.S.W

Force of surface current. 1

Direction of bottom current, S 74° W - 1/2 mile

Force of bottom current.

Name of vessel.

To what service attached

Name and rank of commanding officer \_\_\_\_\_

Name and position of observer:



992

## REMARKS.

Depth of specimen.			
Surface			
5 fms			
10 "			

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *992*  
 Date, *Sept. 7, 81*  
 Locality, *off Normans Land*  
 Bearings, *Lat. 40.33 N.*  
*Long. 70° 45' W.*  
*Time of day, 7.52* of tide, *high* *7.40*  
 State of sky, *clear*  
 Temperature of air, *69*  
 " surface of water, *65°*  
 " at depth of *5* fathoms, *63°* *10-53°*  
 " of bottom, *50* *48°*  
 Depth, in fathoms, *35-36*  
 Nature of bottom, *Green mud sand*  
 Direction of surface current, *wind* *N. S. W.*  
 Force of surface current, *3*  
 Direction of bottom current, *wind* *3*  
*Drift* *S 1/4 W.*  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

REMARKS.

108 fathoms Rope paid out

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

993

Date,

Sept 7

Locality,

Off Hornum's Land

Bearings,

Lat 40. 26 N

Long - 70 - 44. W

but over 8.24

bottom 8.28

Time of day,

up 8.50; of tide. until

8.43

State of sky,

clear

Temperature of air,

69

"

surface of water,

65

"

at depth of

5

fathoms,

63°

10 fms

54°

"

of bottom,

20

"

51°

46.5

Depth, in fathoms,

37

37

Nature of bottom,

mud

Direction of surface current,

wind

W.S.W

Force of surface current,

wind

4

Direction of bottom current,

none

S

5/8 mile

Force of bottom current,

Name of vessel.

To what service attached.

Name and rank of commanding officer.

Name and position of observer.

934

## REMARKS.

Tide gauge 66.5 ft

Tide gauge 5.46.5.5

100 ft 15.1.5

100 ft 55.15

100 ft 19.30

100 ft 12.03.30

100 ft 07.15

100 ft 10.30

68

68 1.0242 Surface

68 1.0242 1.0242

68 1.0242 1.0242

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *994*  
 Date, *Sept. 8.*  
 Locality,  
 Bearings, *Lat 39° 40' N.*  
*Long 71° 30' W.*  
 Time of day, *4:30* *of tide*  
 State of sky, *Clear*  
 Temperature of air, *72°*  
 " surface of water, *68°*  
 " at depth of *5* fathoms, *69°* *10 - 65.5°*  
 " of bottom, *40.5* *20 - 47*  
 Depth, in fathoms, *357* *368* *30 - 46.5*  
 Nature of bottom, *M.* *50 - 48.5*  
 Direction of ~~surface current~~ *wind N. N. W. S.*  
 Force of surface current,  
 Direction of ~~bottom current~~ *drift - N. W. by N. 1/2 N. =*  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

# REMARKS.

down	6.32.40	up	6.13.56
100	35.45		29.45
200	38.20		28.20
300	40.30		17.00
400			6.26.35
500	42.45		
600	44.50		
615	47.05		

Trawlings			Soundings	
<del>Soundings</del>			<del>Soundings</del>	
Depth	Time		Time	
Fath.	Down	Up	Down	Up
0	6.32.40	32.45	6.13.50	31.05
100	35.45	29.20	6.14.55	29.45
200	38.20	25.45	15.58	28.20
300	40.30	21.55	17.00	---
400	42.45	18.07	<sup>345</sup> 17.35	6.26.35
500	44.50	14.15		
600	47.05	10.35		
615	47.08	09.15		

Thermometer sounding time given

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *992*

Date, *Sept 8. 81*

Locality,

Bearings, *Lat 35 40.3 N.*

*Long 71 30.2 W.*

Time of day, *6.32*; of tide,

State of sky, *partly cloudy - hazy*

Temperature of air, *72*

surface of water, *68°*

at depth of *5* fathoms, *69* - *10* *65.5*

of bottom, *40.5* *20 - 92*

Depth, in fathoms, *34.5 35.5 36.5 37.5 38.5 39.5 40.5*

Nature of bottom, *Yellow mud & sand*

Direction of surface current, *Drift 2 miles*

Force of surface current,

Direction of bottom current, *Drift 1/2 mi. at 1/2 hr.*

Force of bottom current,

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,



996

## REMARKS.

Water specimen

Depth	Specific Gravity	Temp.	Corrected to 60°
Surface			
5 fms			
10 "			

Dredge  
SoundingsSoundings  
Trawlings

Depth	Time		Time	
	Down	Up	Down	Up
0	5.41.30	8.37.40	5.35.00	50.05
100	45.30	8.31.50	39.20	49.00
200	49.30	8.28.40	40.35	47.50
300	53.30	8.23.45	41.50	45.20
400	57.25	8.22.30	42.10	44.00
500	8.00.30	8.19.10		
600	8.04.35	8.18.40		
625				
700	8.05.	8.14.30		

# TEMPERATURE RECORD.

Instrument used, *Rake Bridge*

Current number of observation, *996*

Date, *Sept 8. 81*

Locality,

Bearings, *Lat. 35. 41. N.*

*Long. 71. 31. 27. W.*

Time of day, *7. 35*

State of sky, *partly cloudy*

Temperature of air, *75*

" surface of water, *67.5*

" at depth of *5* fathoms, *65 - 10 - 56.5*

" of bottom, *40°* *20 - 45*

Depth, in fathoms, *346 f. - 346* *30 - 42*

Nature of bottom, *gt. s. s. s.* *50 - 48*

Direction of surface current, *Wind N N W*

Force of surface current, *Wind 3*

Direction of bottom current, *Drift NW 1/4 mile*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

997

## REMARKS.

Water Specimens

Depth	Specific Gravity	Temp.	
Surface			
5 fms			
10 "			

Depth	Sounding		Trawling	
	Time		Time	
	Down	Up	Down	Up
0	8 38.00	50.05	9.03.45	10.10.40
100	39.20	49.00	27.	10.12.10
200	40.35	47.20	10.05	10.02.30
300	41.50	45.20	12.50	16.45
400	<del>42.10</del> 42.10	45.00	15.30	52.25
500			19.00	48.30
600			22.05	
700			25.10	40.30

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

997

Date,

Sept. 8, 81

Locality,

Lat. 32° 22' N.

Bearings,

Long. 74° 32' W.

Time of day, 9:15 AM; of tide,

State of sky,

partly cloudy

Temperature of air,

75

"	surface of water,	65.5 -	10 fms	56.5
"	at depth of 5 fathoms,	65.5	20 "	52
"			30 "	49
"	of bottom,	40 "	50 "	48
			60 "	47.5

Depth, in fathoms, 342 335

Nature of bottom, Yellow Mud

Direction of surface current,

Wind NE

Force of surface current,

Wind 3

Direction of bottom current,

Drift NE by N 1/2 E

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

998

REMARKS.

Water specimens

Depth	Specific Gravity	Temp	
Surface	1.0245	68	1.025636
5 fms	1.0243	68	1.025436
70 "	1.0250	59	1.02488

	Soundings		Trawlings	
	Time		Time	
	Down	Up	Down	Up
0	10.14.30	32.05	10.34.45	55.00
100	15.45	30.00	37.30	31.50
200	17.25	28.05	40.30	27.55
289	18.00	10.26.40	<del>43.00</del>	<del>27.55</del>
300			43.00	23.20
400			46.45	18.15
500			50.45	14.25
600			56.10	10.00
610			56.40	11.07.25

Measurements 50 fathoms 2000  
 " 100 " 32

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *998*

Date, *Sept. 8, 1881*

Locality,

Bearings, *S. 2, 3 5, 4 3, W.*

*Long 71. 3 2, W.*

Time of day, *10. 34 AM*, of tide,

State of sky, *Heavy*

Temperature of air, *74*

" surface of water, *68°*

" at depth of *5* fathoms, *63° - 10 - 51°*

" of bottom, *20 44 30 - 43.5*

*40 50 - 40*

Depth, in fathoms, *289 300*

Nature of bottom, *fine mud*

Direction of surface current, *Wind E N E*

Force of surface current, *Wind - 4*

Direction of bottom current, *Drift North 1 1/2 miles*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

999

## REMARKS.

Surface	1.0244	68	1.025536
5 fms	1.0245	67	1.025487
10 -	1.0246	59	1.02458

Depth	Soundings		Timings	
	Time		Time	
	Down	Up	Down	Up
	11.43.55	57.55	11.42.00	38.30
100	45.10	56.10	56.05	35.35
200	46.30	54.30	59.30	32.45
250	11.48.00	11.53.00		
300			12.04.15	27.30
400			12.07.00	26.05
500			12.11.40	21.35
550			12.12.00	12.30

Measurements: 250 fms 60 sec.  
200 50

# TEMPERATURE RECORD.

Instrument used,

Rake Dredge

Current number of observation,

99

Date,

Aug. 11.

Locality,

Course,

Lat. 39.45.18. N.

Long. 71.30.20. W.

Time of day,

11.48

; of tide,

State of sky,

Thay.

Temperature of air,

73

"

surface of water,

69

"

at depth of

2

fathoms,

63°

10 fms 51°

"

of bottom.

20

-

45°

30 fms 50°

50

-

46°

200 fms 52°

Depth, in fathoms,

250

-

200

Nature of bottom,

Green mud

Direction of surface current,

Wind

E by S

Force of surface current,

Wind

4

Direction of bottom current,

Swift

NNW

3/4 mile

Force of bottom current,

Name of vessel.

To what service attached.

Name and rank of commanding officer.

Name and position of observer.



## REMARKS.

Depth	Spec. Leads	Temp	
Surface	1.0248	68.5	1.026
5 fms	1.0244	68	1.02326
10			

Soundings			Trawlings	
Depth	Leads		Leads	
	Down	Up	Down	Up
0	15.00		1.27.15	16.10
100			30.05	12.00
200			33.05	07.55
300			36.05	04.10
400			39.20	2.50.22
450			41.00	<del>2.45.25</del>
500			48.25	1.56

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation, 1045

Date,

*Sept 8.*

Locality,

Bearings,

*Lat. 39.49. N.*

*Long. 71.25. W.*

Time of day, 1.05 <sup>12</sup> of tide.

State of sky,

*Clear*

Temperature of air,

*78.*

surface of water,

*69.*

at depth of

fathoms,

*68°*

*10 fms 69*

of bottom,

*45*

*20 54 1/2*

Depth, in fathoms,

*157.2/6.*

*30 51*

Nature of bottom,

*Green Mud*

Direction of surface current,

*Current*

*N. E. x E.*

Force of surface current,

*Current*

*4*

Direction of bottom current,

*Current*

*N. E. x E.*

*1 mile*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Depth	Spec. Srar.	Temp.	
Surface	1.0246	54	1.025536
5 fms	1.0246	67.5	1.02566
10 -			

Sounding			Trawling	
Depth fms	Time		Time	
	Down	up	Down	up
0	2.40	2.50	3.55.00	3.51.00
100	2.05	49.45	58.30	27.00
175	2.43.00	2.48.00	—	—
200			3.01.15	22.35
300			3.04.30	18.30
400			3.07.00	8.14.00

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1026*

Date, *Sept 8-*

Locality,

Bearings *Lat. 34.5-0.20.2*

*Long. 71. 23. 45-*

Time of day, *2.55* ; of tide,

State of sky, *Clear*

Temperature of air, *69*

" surface of water, *69*

" at depth of *5* fathoms, *69*

*10 fms 68*

" of bottom, *47.5*

*20 - 56*

*30 - 48*

*50 - 51*

Depth, in fathoms, *47.5 / 82.*

Nature of bottom, *Green Mud*

Direction of surface current, *bound E N E*

Force of surface current, *10 mi 5*

Direction of bottom current,

*Drift N by E 1 1/2 mi*

Force of bottom current,

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,



# TEMPERATURE RECORD.

Instrument used, *Deep Sea Trawl*

Current number of observation, *1027*

Date, *Sept. 14th 1881*

Locality,

Bearings, *Lat. 40 00 00 N.*  
*Long 69, 19, 10.*

Time of day, *7.23* ; of tide,

State of sky, *Clear*

Temperature of air, *61*

" surface of water, *65 - 10 fms. 56*

" at depth of *5* fathoms, *66 - 20 fms 67*

" of bottom, *48.5* *30 47*  
*50 46*

Depth, in fathoms, *90 93*

Nature of bottom, *Fine Sand*

Direction of surface current,  
*Wind E.N.E*

Force of surface current,

Direction of bottom current, *Wind - 3*  
*Drift north 1/4 mile*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1028

## REMARKS.

Depth	Specific Gravity	Temp.	Corrected to 60°
Surface	1.024	66	1.02574
5 fms	1.024	66.5	1.02581
10 "	1.0248	65.5	1.02556

Depth	Sounding		Trawling	
	Time		Time	
	Up	Down	Down	Up
0	8.58.50	8.42.25	9.01.00	11.22.20
100	8.57.45	8.43.30	9.02.40	11.16.15
200	8.55.45	8.45.00	9.04.30	11.09.45
300	8.54.05	8.46.15	9.11.45	10.02.35
395	8.52.15	8.47.50	-	-
400			9.15.50	10.00.00
500			9.18.35	9.52.30
600			9.20.45	9.45.00
694			9.23.10	9.38.30

Messenger - 10 fms 5 sec.  
 20 " 14 "  
 30 " 16 "  
 50 " 26 "  
 100 " 50 "

# TEMPERATURE RECORD.

Instrument used, *Deep Sea Trawl*

Current number of observation, *1028*

Date, *Sept 14 1881*

Locality,

Bearings, *Lat 39.57 N.*  
*Long. 69.17 W.*

Time of day, *9.01* ; of tide.

State of sky, *clear*

Temperature of air, *66.5*

" surface of water, *66*

" at depth of *5* fathoms, *66* - *10 fms. 68*

" of bottom, *41°* *20 " 48*

Depth, in fathoms, *395 410* *30 " 45*

Nature of bottom, *yellow mud* *50 " 49.5*  
*100 " 46*

Direction of surface current, *Wind N.E.*

Force of surface current, *Wind 3*

Direction of bottom current, *Drift N.N.E. 1/2 mile*

Force of bottom current.

Name of vessel.

To what service attached.

Name and rank of commanding officer.

Name and position of observer.



1029

## REMARKS.

Depth	Specific Gravity	Temp.	
Surface	1.0249	66	1.02574
5 fms	1.0249	66.5	1.02581
10 "	1.0248	65.5	1.02556

## Trawl

Depth	Time		Time	
	down	up	down	up
0			12.13.45	18.30
100			17.35	15.05
200			21.30	11.45
300			24.05	08.25
400			26.15	04.55
500			29.25	01.35
600			32.20	12.58.05
700			34.50	12.54.00
750			36.00	12.51.15

27.15

22.15

# TEMPERATURE RECORD.

Instrument used, *Beam Trawl*

Current number of observation, *1029*

Date, *Sept. 14. 81*

Locality,

Bearings,

*Lat. 39° 57' N*  
*Long 69. 16 W.*

Time of day, *12.13.* ; of tide,

State of sky, *Clear*

Temperature of air, *72*

" surface of water, *68*

" at depth of *5* fathoms, *66 - 10 fms 63°*

" of bottom, *40* *20 " 48°*

Depth, in fathoms, *442 458* *30 " 45°*

Nature of bottom, *Yellow Mud* *50 " 49.5°*  
*100 46*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

# REMARKS.

1.24.05 -

90